Metal complexes used as light-absorbent compounds in the information layer of optical data carriers

Abstract

Optical data carriers comprising a preferably transparent substrate which may, if desired, have previously been coated with one or more reflection layers and to whose surface a light-writable information layer, if desired one or more reflection layers and if desired a protective layer or a further substrate and a covering layer have been applied, which can be written on or read by means of blue light, preferably light having a wavelength in the range 360-460 nm, in particular from 390 to 420 nm, very particularly preferably from 400 to 410 nm, preferably laser light, where the information layer comprises a light-absorbent compound and, if desired, a binder, characterized in that at least one metal complex having at least one ligand of the formula (I)

$$\begin{array}{c}
A \\
N
\end{array}$$

$$\begin{array}{c}
Y^2 \\
Y^3
\end{array}$$

$$\begin{array}{c}
X^{(-)}
\end{array}$$
(I),

where

the radical of the formula (N) (hereinafter referred to as A for short)

is a substituted or unsubstituted and/or benzo- or naphtho-fused five- or six-membered aromatic or pseudoaromatic or partially hydrogenated heterocyclic radical,

n is 0 or 1,

 Y^1 is N or C- R^1 ,

 Y^2 is N or C- R^2 ,

 Y^3 is N or C- R^3 ,

X is O, S or $N-R^5$,

R⁵ is hydrogen, alkyl, alkenyl, aralkyl, cycloalkyl, acyl, aryl or a heterocyclic radical,

- R¹ to R⁴ are each, independently of one another, hydrogen, halogen, alkyl, alkoxy, monoalkylamino or dialkylamino, aralkyl, aryl, hetaryl, arylazo, hetarylazo, cyano or alkoxycarbonyl,
- $R^1; R^2, R^2; R^3$ and $R^4; R^5$ can each, independently of one another, form a bridge and
- R²;R⁵ can form a substituted or unsubstituted bridge when n is 0,

is used as light-absorbent compound.